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ABSTRACT

A study investigated whether children's early book reading experiences at home were related to later narrative skills, and whether narrative skills were related to school measures of literacy and language. Data were collected as part of the Home School Study of Language and Literacy Development, a longitudinal study designed to explore the relationships between early language experiences and later literacy and school achievement. Subjects were 62 mothers and children who carried out a story retelling task during the third annual home visit when the children were 5 1/2 years old. Mothers' talk during book reading was analyzed, and the stories retold by the children were transcribed and coded for story sense, non-pictured information, and length. Results indicated that: (1) book reading experiences at home at age 3 1/2 were related to the child's story retelling 2 years later; (2) home literacy environment at age 3 1/2 was associated with all 3 measures of story retelling and contributed to predicting the quality of the retelling; (3) children's story retelling in kindergarten was associated with kindergarten measures of language and emergent literacy; (4) story retelling was even more strongly associated with reading measures in first grade than in kindergarten; (5) all story retelling measures were associated with first grade reading and language skills; and (6) incorporation of information about the home literacy environment obtained at age 3 1/2 contributed greatly to predicting first grade reading performance. (Contains 7 references and 7 tables of data. An appendix presents the full text of the story the children retold.) (RS)

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CHILDREN'S STORY RETELLING AS A PREDICTOR OF EARLY READING ACHIEVEMENT

ED 403 543

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Children come to school with a wide range of skills and styles in producing narratives (Heath, 1983, Peterson and McCabe, 1994). Increasing attention has been given to children's narrative as an important aspect of language development and to the association between narrative skills and language and literacy achievement (Snow, 1991). One important experience that children have with narratives occurs during book reading at home (De Temple and Hirschler, 1991).

RESEARCH QUESTIONS

- How are children's early book reading experiences at home associated with later narrative skills?
  - Is there an association between mothers' style of book reading and the child's later retelling of the story?
  - Is there an association between the child's early literacy environment (e.g., access to books, frequency of reading) and the child's story retelling?
- How are narrative skills associated with school measures of literacy and language?
  - What is the association between the child's story retelling in kindergarten and kindergarten measures of language and emergent literacy?
  - What is the association between the child's kindergarten story retelling and first grade measures of language and literacy?

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THE STUDY

The data for this study were collected as part of The Home School Study of Language and Literacy Development, a longitudinal study designed to explore the relationships between early language experiences and later literacy and school achievement (Snow, Dickinson and Tabors, 1989).

•Low-income families recruited through Head Start and preschool programs serving low-income families in the Greater Boston area.

•Parents were asked to participate in a study of child language development involving annual home and school visits.

•Subjects in this analysis are the 62 mothers and children who carried out a story retelling task during the third annual home visit when the children were 5 1/2 years old.

PROCEDURE

•At each home visit when children were 3 1/2, 4 1/2 and 5 1/2 years old mothers were asked to carry out a variety of tasks with their children, including reading The Very Hungry Caterpillar, by Eric Carle. Mothers were interviewed about literacy practices in the home.

•At age 5 1/2 children were provided with a copy of the now familiar book, The Very Hungry Caterpillar (see Appendix for complete text), and asked to retell the story to the experimenter while looking at the book.

•At age 5 1/2 (kindergarten year) children were tested on measures of language and emergent literacy using standardized and experimenter designed measures of: Story Comprehension, Emergent Literacy, Definitional Skill and Receptive vocabulary (PPVT).

•In first grade children were tested on reading words (WRAT) and passages (Gray Oral) and

on their skill in defining words.

Coding

Book Reading The mothers' talk during book reading was analyzed in terms of her use of non-immediate talk: comments and questions drawing on information not immediately available from the illustrations or text (e.g., explanations, connections to past events, inferences).

Literacy Environment The mothers' answers to 10 questions addressing both literacy support (e.g., number of books owned, use of the library, bookstore, frequency of reading) and child literacy behavior (e.g., having a favorite book, pretending to read) when child was 3 1/2. One question was asked during the second home visit (Mother's favorite author).

Story Retelling The stories told by the children were transcribed and coded for three measures:

Story sense: an wholistic coding of story quality

Non-pictured information: the number of words that conveyed non-pictured information divided by the total number of words in the retelling

Length: total number of words in the retelling

Examples of wholistic scoring for story sense

Score = 1
he ate
he ate...
uh he ate
he ate
he ate
he ate
he ate
hmm balls
sun

dark sun
um apple
pear
pear pear
hmm
plum
plum plum plum
plum plum plum
strawberry strawberry strawberry strawberry
mmm
strawberry strawberry strawberry strawberry
orange orange orange orange orange
mmm
yuck
good good
good
good good good good good good good
good
good
good
good
good good good good goodthe very hungry caterpillar

Score = 2
the egg is on the leaf
and the sun came out
he ate one apple and two pears and three of these
and four strawberries and five five oranges
and one piece of chocolate cake and one ice cream and one pickle and one slice of cheese and some salami and one lollipop and a piece of cherry pie and a sausage and a muffin and a watermelon
and then he had a bellyache
and he ate through one leaf
then he went into a big fat caterpillar
then he was a butterfly

Score = 3
the hungry hungry caterpillar
one morning when the sun rised up
a egg fell out of the trees
and it was white and round and it wasn't brown!
one morning when the sun rised up and it went pop!
the hungry little caterpilla(r) came out of...
ooh hungry hungry

one day he ate one [!] piece of apple!
the other day he ate two pieces of pear
[laughs]
on another day he ate three plums
on the other day he ate four strawberries
on another day he ate five oranges
and then another day he ate the piece of cake ice cream cone
pickle Swiss cheese salami lollipop and some cherry pie
and salami
no
sausage
and a cupcake and some watermelon!
and then [gasps] he ate a piece of big juicy bite of leaf!
then he was so fat
he built himself a cocoon
big cocoon!
the next day he quickly bited a hole and worked his way out
turned into a big [!] big [!] butterfly!
the end

Score = 4
one night there's a little baby egg
good morning!
it was a hot day and the egg cracked
then he was hungry
he ate through a apple
then he was still [!] hungry
then he ate through two [!] pears
then he ate through three plums
then he was still [!] hungry and ate one two three
three [!] strawberries
and he was still [!] hungry
then he ate one two three four five five [!] oranges
then he ate cake ice cream hot dog [giggles]
a nice cheese meat um lollipop
&c um cake
um a hot dog
um a muffin
watermelon
then he had a stomach ache
the he ate through nice green apple in five bites
then he wasn't just a little calapitter [=caterpillar] he was big and fat [!] calapitter
[=caterpillar]!
then he dug himself a hole

and then he became into a beautiful butterfly

Score = 5
a little egg laid on a leaf
one morning um the sun popped out the egg
a very tiny hungry caterpillar came
out of the egg
one day he was looking for food
he was very hungry
Monday morning he ate through one apple
but he was still [!] hungry
Wednesday morning he ate through three plums
but he was still [!] hungry
Thursday morning he ate through four strawberries
but he was still [!] hungry
Friday morning he ate through five oranges
but he was still hungry
Saturday morning he ate through one piece of
chocolate cake one ice cream
one um pickle...
one piece of salami and one lollipop
and strawberry pie and um uh...
puffin [= muffin]
that night he had stomachache
that morning he ate through just a little leaf
then he felt much better
and he wasn't thin
he's fat
he wasn't a small caterpillar anymore
he was a great big fat caterpillar
one day he made a cocoon
he stayed there more than two weeks
then one day he pushed himself and was a beautiful butterfly!

Examples of pictured and non-pictured information:

PICTURED	NON-PICTURED
	the very hungry
caterpillar	
	once there was
a leaf with a little tiny egg on it	

when the sun came up
there was a little caterpillar sitting
on the leaf

and Tuesday

he ate one apple

and then Sunday

he ate um two pears

and then Friday

he ate three plums

and Sunday

he ate four strawberries

and then Monday

he ate five oranges

and then the next day

pickle cheese a slice of bologna
he had one lollipop one piece of pie and
one hot dog and one salami and one
watermelon

then the next day he was too hungry still
hungry

and the next day

he was too fat

then

he wrapped a cocoon around him

then

he turned into a butterfly

RESULTS

•Book reading experience at home at age 3 1/2 was related to the child's story retelling to an experimenter two years later (see Table 1). The mother's use of non-immediate talk was positively associated with story sense and with non-pictured information, the most parallel measure of child talk.

•The home literacy environment at age 3 1/2 was associated with all three measures of story retelling.

•The home literacy environment at age 3 1/2 contributes to predicting the quality of the retelling--scored as story sense--, as well as contributing to the prediction of the style of the retelling--scored as percent of non-pictured words--at age 5 1/2 (see Tables 2 and 3).

•Children's story retelling in kindergarten was associated with kindergarten measures of language and emergent literacy (see Table 4). The quality of the child's story was particularly strongly associated with story comprehension and emergent literacy. The total amount of talk was only associated with emergent literacy.

•Story retelling was even more strongly associated with reading measures in first grade than in kindergarten (see Table 5).

•All story retelling measures were associated with first grade reading and language skills. Story quality was most strongly associated with skill in reading passages.

•Story sense, emergent literacy and PPVT are useful predictors of first grade reading (see Table 6).

•The best single kindergarten predictor of reading is emergent literacy. The best model for predicting first grade reading combines emergent literacy and story sense.

•Incorporation of information about the home literacy environment obtained at age 3 1/2 contributes greatly to predicting first grade reading performance (see Table 7).

•The model combining preschool home literacy environment and kindergarten emergent literacy and story sense is a powerful predictor of first grade reading skill.

Table 1. Correlations between Home Measures of Book Reading at Age 3 1/2 and Child's Story Retelling at Age 5 1/2.

	Child Story Retelling Measures		
Home Measures	Story Sense	Non-Pictured (%)	Total Words
# Mother's Non-immediate Utterances	.19	.25*	.19
% Mother's Non-immediate Utterances	.28*	.23~	.19
Literacy Environment	.40**	.36**	.29*

~ $p<.10$
* $p<.05$
** $p<.01$
*** $p<.001$

Table 2. Predicting Child's Story Retelling Quality (Story Sense) (n = 56).

Model	% Non-immediate Utterances ß	seß	Literacy Environment ß	seß	R^2
I	.04*	.02			.08*
II			.19**	.06	.16**
III	.03	.02	.16**	.06	.19**

* $p < .05$
** $p < .01$
*** $p < .001$

Table 3. Predicting Child's Story Retelling Style (% Non-Pictured) (n = 56).

Model	# Non-immediate Utterances ß	seß	Literacy Environment ß	seß	R^2
I	.01	.006			.06
II			.02**	.007	.13**
III	.01	.006	.02	.007	.16**

* $p < .05$
** $p < .01$
*** $p < .001$

Table 4. Correlations between Child's Story Retelling and Kindergarten Measures of Language and Literacy Skill.

	Child Story Retelling Measures		
Kindergarten Language and Literacy Skill	Story Sense	% Non-Pictured	Total Words
Story Comprehension	.33**	.25*	.22~
Emergent Literacy	.39***	.17	.25*
Receptive Vocabulary	.28*	.24~	.21
Definitional Skill	.28*	.28*	.15

~ $p < .10$
* $p < .05$
** $p < .01$
*** $p < .001$

Table 5. Correlations between Child's Story Retelling and First Grade Measures of Reading and Language (n = 56).

	Child Story Retelling Measures		
First Grade Measures	Story Sense	% Non-Pictured	Total Words
Reading (WRAT)	.40**	.20	.20
Reading (Gray Oral Passage Score)	.53****	.35**	.32**
Definitional Skill	.30*	.36**	.41***

* $p < .05$
** $p < .01$
*** $p < .001$
**** $p < .0001$

Table 6. Predicting First Grade Reading Performance (n = 56)

Model	Story Sense		Emergent Literacy		PPVT		R^2
	ß	seß	ß	seß	ß	seß	
I	4.00***	.86					.28***
II			1.56***	.24			.44***
III					.25**	.07	.18**
IV			1.43***	.28	.06	.07	.45***
V	2.27**	.79	1.25***	.25			.51***
VI	2.22**	.81	1.19***	.28	.03	.07	.52***

* p<.01
** p<.001
*** p<.0001

Table 7. Predicting First Grade Reading Performance (n=56)

Model	Literacy Environment		Emergent Literacy		PPVT		Story Sense		R^2
	ß	seß	ß	seß	ß	seß	ß	seß	
I	2.10***	.42							.34***
II	1.45***	.34	1.30***	.21					.62***
III	1.71**	.44			.16*	.07			.40***
IV	1.42**	.40					3.43**	.83	.51***
V	1.15**	.33	1.07***	.22			2.07**	.74	.68***
VI	1.43**	.36	1.28***	.24	.01	.06			.62***

* p<.01
** p<.001
*** p<.0001

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APPENDIX

THE VERY HUNGRY CATERPILLAR
by Eric Carle

In the light of the moon a little egg lay on a leaf.

One Sunday morning the warm sun came up and - pop! - out of the egg came a tiny and very hungry caterpillar.

He started to look for some food.

On Monday he ate through one apple. But he was still hungry.

On Tuesday he ate through two pears, but he was still hungry.

On Wednesday he ate through three plums, but he was still hungry.

On Thursday he ate through four strawberries, but he was still hungry.

On Friday he ate through five oranges, but he was still hungry.

On Saturday he ate through one piece of chocolate cake, one ice-cream cone, one pickle, one slice of Swiss cheese, one slice of salami, one lollipop, one piece of cherry pie, one sausage, one cupcake, and one slice of watermelon. That night he had a stomachache!

The next day was Sunday again. The caterpillar ate through one nice green leaf, and after that he felt much better.

Now he wasn't hungry any more - and he wasn't a little caterpillar any more. He was a big, fat caterpillar.

He built a small house, called a cocoon, around himself. He stayed inside for more than two weeks. Then he nibbled a hole in the cocoon, pushed his way out and ...

he was a beautiful butterfly!